**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION III**
**Environmental Sciences Center**
**701 Mapes Road**
**Fort Meade, Maryland 20755-5350**

DATE : February 8, 2012

SUBJECT: Region III Data QA Review

FROM: Colleen Walling
Region III ESAT RPO (3EA20)

TO: Rich Fetzer
Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (Case #: 180-2644-1) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0037 TDF: #02024A

cc: Gene Nance (Techlaw)
Suddha Graves (Techlaw)

Lockheed Martin IS&GS – Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Ex. 4 - CBI

LOCKHEED MARTIN
*We never forget who we're working for™*

**Date:** February 07, 2012

**Subject:** Organic Data Validation (M3 Level)
Project: 180-2644-1
Site: Dimock

**From:** Ex. 4 - CBI
Organic Data Reviewer

Ex. 4 - CBI
Senior Oversight Chemist

**To:** Ex. 4 - CBI
ESAT Region 3 Project Officer

## OVERVIEW

Third party Project 180-2644-1, consisted of two (2) aqueous samples analyzed for the following parameters by the methods listed below. All analyses were performed by TestAmerica – Pittsburgh (TALPA) through the Delivery of Analytical Services (DAS) program.

| Parameter | Method |
|---|---|
| Volatile Organic Compounds | EPA 8260B |
| Semivolatile Organic Compounds | EPA 8270C |
| Glycols | EPA 8015C |
| Dissolved gases | RSK-175 |
| Gas Range Organics | EPA 8015B |
| Ethylene dibromide | EPA 8011 |
| Diesel Range Organics | EPA 8015B |

## SUMMARY

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage_4_Validation_Manual). Areas of concern with respect to data usability are listed below.

## MINOR PROBLEM

- The laboratory reported that samples for dissolved gases analyses had a pH greater than two (>2) when received. Analysis of these samples was performed six (6) days after collection. Samples must be preserved to pH of less than two (<2) for dissolved gases. The positive result reported for methane in TC-1 was qualified "L" on the DSF. Quantitation limits for remaining compounds in these samples were qualified "UL" on the DSF.

## NOTES

- Several compounds failed precision criteria [Percent Difference (%D)] in continuing calibrations associated with volatile, semivolatile and dissolved gases fractions. No positive results were reported for these compounds. The quantitation limit for semivolatile compound benzidine exceeded the 50% criteria; however, this compound was not listed on sample Form Is and no action was taken by the reviewer based on this finding.

- Target compound triethylene glycol was found in the analysis of method blank 480-27399/1-A at a concentration of 3.14 J mg/L. Sample TC-1 reported a concentration of this blank contaminant less than five times (<5X) the blank concentration and has been qualified "B" on the DSF.

- Sample volumes other than one (1) liter were used in the semivolatile and diesel range organic analyses for the samples associated with this case. The dilution factors reported on the DSFs reflect actual sample volumes analyzed.

- Results and Relative Percent Differences (RPDs) for Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) analyses were within control limits for all parameters.

- Compounds detected below Reporting Limits (RLs) are qualified "J" unless superseded by "B" on the DSFs.

## ATTACHMENTS

Appendix A – Glossary of Data Qualifier Codes
Appendix B – Data Summary Form(s)
Appendix C – Chain of Custody Records
Appendix D – Laboratory Case Narrative

DCN: 180-2644-1_Organic

# Appendix A
# Glossary of Data Qualifier Codes

## GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

# Appendix B
# Data Summary Forms

Project #: 180-2644-1
Site : DIMOCK
Lab. : TALPA

Number of Soil Samples : 0
Number of Water Samples : 2

| Sample Number / Location: | | TC-1 | | AW-2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Matrix : | | Water | | Water | | | | | | | |
| Units : | | ug/L | | ug/L | | | | | | | |
| Date Sampled : | | 08/04/2011 | | 08/04/2011 | | | | | | | |
| Time Sampled : | | 09:30 | | 13:20 | | | | | | | |
| pH : | | <2.0 | | <2.0 | | | | | | | |
| Dilution Factor : | | 1.0 | | 1.0 | | | | | | | |
| Target Compound | RL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| Acetone | 5.0 | | | | | | | | | | |
| Benzene | 1.0 | | | | | | | | | | |
| Toluene | 1.0 | | | | | | | | | | |
| Bromodichloromethane | 1.0 | | | | | | | | | | |
| Ethylbenzene | 1.0 | | | | | | | | | | |
| Bromoform | 1.0 | | | | | | | | | | |
| Xylenes, Total | 3.0 | | | | | | | | | | |
| Bromomethane | 1.0 | | | | | | | | | | |
| Isopropylbenzne | 1.0 | | | | | | | | | | |
| 2-Butanone | 5.0 | | | | | | | | | | |
| Methyl tert-butyl ether | 1.0 | | | | | | | | | | |
| 1,2,4-Trimetyhylbenzene | 1.0 | | | | | | | | | | |
| Carbon disulfide | 1.0 | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 1.0 | | | | | | | | | | |
| Carbon tetrachloride | 1.0 | | | | | | | | | | |
| Chlorobenzne | 1.0 | | | | | | | | | | |
| Chloroethane | 1.0 | | | | | | | | | | |
| Chloroform | 1.0 | | | | | | | | | | |
| Dibromochloromethane | 1.0 | | | | | | | | | | |
| 1,2-dibromoethane (EDB) | 1.0 | | | | | | | | | | |
| Naphthalene | 1.0 | | | | | | | | | | |
| 1,2-Dichloroethane | 1.0 | | | | | | | | | | |
| 1,2-Dichloroethene, Total | 1.0 | | | | | | | | | | |
| 1,1-Dichloroethane | 1.0 | | | | | | | | | | |
| Bromochloromethane | 1.0 | | | | | | | | | | |
| 1,2-Dichloroethane | 1.0 | | | | | | | | | | |
| 1,1-Dichloroethene | 1.0 | | | | | | | | | | |
| trans-1,2-Dichloroethene | 1.0 | | | | | | | | | | |
| 1,2-Dichloropropane | 1.0 | | | | | | | | | | |
| cis-1,2-Dichloropropene | 1.0 | | | | | | | | | | |
| trans-1,3-Dichloropropene | 1.0 | | | | | | | | | | |
| Ethylbenzene | 1.0 | | | | | | | | | | |
| 2-Hexanone | 5.0 | | | | | | | | | | |

Project #: 180-2644-1
Site : DIMOCK
Lab. : TALPA

| Sample Number / Location: | | TC-1 | | AW-2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Matrix : | | Water | | Water | | | | | | | |
| Units : | | ug/L | | ug/L | | | | | | | |
| Date Sampled : | | 08/04/2011 | | 08/04/2011 | | | | | | | |
| Time Sampled : | | 09:30 | | 13:20 | | | | | | | |
| pH : | | <2.0 | | <2.0 | | | | | | | |
| Dilution Factor : | | 1.0 | | 1.0 | | | | | | | |
| Target Compound | RL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| Methylene Chloride | 1.0 | | | | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | | | | | | | | | | |
| Styrene | 1.0 | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 1.0 | | | | | | | | | | |
| Tetrachloroethene | 1.0 | | | | | | | | | | |
| Toluene | 1.0 | | | | | | | | | | |
| 1,1,1-Trichloroethane | 1.0 | | | | | | | | | | |
| 1,1,2-Trichloroethane | 1.0 | | | | | | | | | | |
| Trichloroethene | 1.0 | | | | | | | | | | |
| Vinyl Chloride | 1.0 | | | | | | | | | | |
| N-propylbenzne | 1.0 | | | | | | | | | | |
| cis-1,2-dichloroethene | 1.0 | | | | | | | | | | |
| 1,2-Dichlorobenzene | 1.0 | | | | | | | | | | |
| sec-Butylbenzene | 1.0 | | | | | | | | | | |
| 1,3-Dichlorobenzene | 1.0 | | | | | | | | | | |
| p-Isopropyltoluene | 1.0 | | | | | | | | | | |
| 1,4-Dichlorobenzene | 1.0 | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 1.0 | | | | | | | | | | |
| Chloromethane | 1.0 | | | | | | | | | | |
| n-Butylbenzene | 1.0 | | | | | | | | | | |
| m-Xylene & p-Xylene | 2.0 | | | | | | | | | | |
| o-Xylene | 1.0 | | | | | | | | | | |

RL = Reporting Limit
To calculate sample quantitation limits: (RL * Dilution Factor)

SEE NARRATIVE FOR CODE DEFINITIONS
Revised 09/99

Project #: 180-2644-1
Site : DIMOCK
Lab. : TALPA

Number of Soil Samples : 0
Number of Water Samples : 2

| Sample Number / Location: | | TC-1 | | AW-2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Matrix : | | Water | | Water | | | | | | | |
| Units : | | ug/L | | ug/L | | | | | | | |
| Date Sampled : | | 08/04/2011 | | 08/04/2011 | | | | | | | |
| Time Sampled : | | 09:30 | | 13:20 | | | | | | | |
| Dilution Factor : | | 1.18 | | 1.01 | | | | | | | |
| Semivolatile Compound | RL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| Acenaphthene | 0.20 | | | | | | | | | | |
| Anthracene | 0.20 | | | | | | | | | | |
| Acenaphthylene | 0.20 | | | | | | | | | | |
| Benzo(a)anthracene | 0.20 | | | | | | | | | | |
| Benzo(b)fluoranthene | 0.20 | | | | | | | | | | |
| Benzo(a)anthracene | 0.20 | | | | | | | | | | |
| Benzo(g,h,i)perylene | 0.20 | | | | | | | | | | |
| Benzo(a)pyrene | 0.20 | | | | | | | | | | |
| Benzo(k)fluoranthene | 0.20 | | | | | | | | | | |
| Chrysene | 0.20 | | | | | | | | | | |
| Fluorene | 0.20 | | | | | | | | | | |
| Indeo(1,2,3-cd)pyrene | 0.20 | | | | | | | | | | |
| Bis(2-chloroethoxy)methane | 1.00 | | | | | | | | | | |
| Phenanthrene | 0.20 | | | | | | | | | | |
| Bis(2-chloroethyl)ether | 0.20 | | | | | | | | | | |
| Pyrene | 0.20 | | | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 2.00 | | | | | | | | | | |
| Butylbenzylphthalate | 1.00 | 0.17 | J | | | | | | | | |
| Carbazole | 0.20 | | | | | | | | | | |
| Chrysene | 0.20 | | | | | | | | | | |
| 2-Chloronaphthalene | 0.20 | | | | | | | | | | |
| 2-Chlorophenol | 1.00 | | | | | | | | | | |
| 2,4-Dichlorophenol | 0.20 | | | | | | | | | | |
| 2,4-Dimethylphenol | 1.00 | | | | | | | | | | |
| 2,4-Dinitrophenol | 5.00 | | | | | | | | | | |
| 2,4-Dinitrotoluene | 1.00 | | | | | | | | | | |
| 2,6-Dinitrotoluene | 1.00 | | | | | | | | | | |
| 1,2-Dichlorobenzene | 1.00 | | | | | | | | | | |
| 2-Methylnaphthalene | 0.20 | | | | | | | | | | |
| 1,3-Dichlorobenzene | 1.00 | | | | | | | | | | |
| 2-Methylphenol | 1.00 | | | | | | | | | | |
| 1,4-Dichlorobenzene | 1.00 | | | | | | | | | | |
| 2-Nitroaniline | 5.00 | | | | | | | | | | |

# DATA SUMMARY FORM: BNA

Project Number: 180-3644-1
Site :
Lab. :

SDG : 2H-1
DIMOCK
TALP

| Sample Number / Location: | | TC-1 | | AW-2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Matrix : | | Water | | Water | | | | | | | |
| Units : | | ug/L | | ug/L | | | | | | | |
| Date Sampled : | | 08/04/2011 | | 08/04/2011 | | | | | | | |
| Time Sampled : | | 09:30 | | 13:20 | | | | | | | |
| Dilution Factor : | | 1.18 | | 1.01 | | | | | | | |
| Semivolatile Compound | RL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| 2-Nitrophenol | 1.00 | | | | | | | | | | |
| bis(2-chloroisopropyl)ether | 0.20 | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 1.00 | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 1.00 | | | | | | | | | | |
| 4-Nitroaniline | 5.00 | | | | | | | | | | |
| 4-Nitrophenol | 5.00 | | | | | | | | | | |
| 4-Chlorophenyl phenyl ether | 1.00 | | | | | | | | | | |
| Methylphenol, 3 & 4 | 1.00 | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 5.00 | | | | | | | | | | |
| 4-chloroaniline | 1.00 | | | | | | | | | | |
| 4-Chloro-3-methylphenol | 1.00 | | | | | | | | | | |
| 4-Bromophenyl phenyl ether | 1.00 | | | | | | | | | | |
| Dibenz(a,h)anthracene | 0.20 | | | | | | | | | | |
| Dibenzofuran | 1.00 | | | | | | | | | | |
| Di-n-butylphthalate | 1.00 | 0.87 | J | 0.46 | J | | | | | | |
| Diethylphthalate | 1.00 | | | 0.20 | J | | | | | | |
| Dimethyphthalate | 1.00 | | | | | | | | | | |
| Di-n-octylphthalate | 1.00 | | | | | | | | | | |
| 3,3'-Dichlorobenzidine | 1.00 | | | | | | | | | | |
| 3-Nitroaniline | 5.00 | | | | | | | | | | |
| Fluoranthene | 0.20 | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 1.00 | | | | | | | | | | |
| Hexachlorobenzene | 0.20 | | | | | | | | | | |
| Hexachlorobutadiene | 0.20 | | | | | | | | | | |
| Hexachlorocyclopentadiene | 1.00 | | | | | | | | | | |
| Hexachloroethane | 1.00 | | | | | | | | | | |
| Isophorone | 1.00 | | | | | | | | | | |
| Naphthalene | 0.20 | | | | | | | | | | |
| Nitrobenzene | 2.00 | | | | | | | | | | |
| N-Nitrosodiphenylamine | 1.00 | | | | | | | | | | |
| N-Nitroso-n-propylamine | 0.20 | | | | | | | | | | |
| Phenol | 0.20 | | | | | | | | | | |
| Phenanthrene | 0.20 | | | | | | | | | | |
| Pentachlorophenol | 1.00 | | | | | | | | | | |
| Benzyl alcohol | 1.00 | | | | | | | | | | |
| N-Nitrosodimethylamine | 1.00 | | | | | | | | | | |
| Benzoic acid | 5.00 | | | | | | | | | | |
| 1,2-Diphenylhydrazine (as Azobenzene) | 1.00 | | | | | | | | | | |
| 1-Methylnaphthalene | 0.20 | | | | | | | | | | |

RL = Reporting Limit
To calculate sample quantitation limits: (RL * Dilution Factor)

SEE NARRATIVE FOR CODE DEFINITIONS
Revised 09/99

Project #: 180-2644-1
Site : DIMOCK
Lab. : TALPA

Number of Soil Samples : 0
Number of Water Samples : 2

| Sample Number : | | TC-1 | | AW-2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Matrix : | | Water | | Water | | | | | | | |
| Units : | | mg/L | | mg/L | | | | | | | |
| Date Sampled : | | 08/04/2011 | | 08/04/2011 | | | | | | | |
| Time Sampled : | | 09:30 | | 13:20 | | | | | | | |
| Dilution Factor : | | 1.0 | | 1.0 | | | | | | | |
| Glycols | RL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| Ethylene glycol | 10 | | | | | | | | | | |
| Propylene glycol | 10 | | | | | | | | | | |
| Triethylene glycol | 10 | 2.7 | B | | | | | | | | |
| 2,2'-Oxybisethanol | 10 | 1.8 | J | 0.58 | J | | | | | | |
| 2-Methoxyethanol | 10 | | | | | | | | | | |
| 2-Ethoxyethanol | 10 | | | | | | | | | | |

RL = Reporting Limit
SEE NARRATIVE FOR CODE DEFINITIONS
To calculate sample quantitation limits: (RL * Dilution Factor)
Revised 09/99

Project #: 180-2644-1
Site : DIMOCK
Lab. : TALPA

Number of Soil Samples : 0
Number of Water Samples : 2

| Sample Number : | | TC-1 | | AW-2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Matrix : | | Water | | Water | | | | | | | |
| Units : | | ug/L | | ug/L | | | | | | | |
| Date Sampled : | | 08/04/2011 | | 08/04/2011 | | | | | | | |
| Time Sampled : | | 09:30 | | 13:20 | | | | | | | |
| pH : | | > 2 | | > 2 | | | | | | | |
| Dilution Factor : | | 1.0 | | 1.0 | | | | | | | |
| Dissolved Gases | RL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| ETHANE | 1.5 | | UL | | UL | | | | | | |
| ETHENE | 1.5 | | UL | | UL | | | | | | |
| METHANE | 1.0 | 18 | L | | UL | | | | | | |
| PROPANE | 3.0 | | UL | | UL | | | | | | |

RL = Reporting Limit
SEE NARRATIVE FOR CODE DEFINITIONS
To calculate sample quantitation limits: (RL * Dilution Factor)
Revised 09/99

Project #: 180-2644-1
Site : DIMOCK
Lab. : TALPA

Number of Soil Samples : 0
Number of Water Samples : 2

| Sample Number : | | TC-1 | | AW-2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Matrix : | | Water | | Water | | | | | | | |
| Units : | | ug/L | | ug/L | | | | | | | |
| Date Sampled : | | 08/04/2011 | | 08/04/2011 | | | | | | | |
| Time Sampled : | | 09:30 | | 13:20 | | | | | | | |
| Dilution Factor : | | 1.0 | | 1.0 | | | | | | | |
| Analyte | RL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| Ethylene Dibromide (EDB) | 0.020 | | U | | | | | | | | |

RL = Reporting Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL * Dilution Factor) Revised 09/99

Project #: 180-2644-1
Site : DIMOCK
Lab. : TALPA

Number of Soil Samples : 0
Number of Water Samples : 2

| Sample Number : | | TC-1 | | AW-2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Matrix : | | Water | | Water | | | | | | | |
| Units : | | ug/L | | ug/L | | | | | | | |
| Date Sampled : | | 08/04/2011 | | 08/04/2011 | | | | | | | |
| Time Sampled : | | 09:30 | | 13:20 | | | | | | | |
| pH : | | <2.0 | | <2.0 | | | | | | | |
| Dilution Factor : | | 1.0 | | 1.0 | | | | | | | |
| Analyte | RL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| Gas Range Organic (GRO) | 25 | | | 17 | J | | | | | | |

RL = Reporting Limit
SEE NARRATIVE FOR CODE DEFINITIONS
To calculate sample quantitation limits: (RL * Dilution Factor)
Revised 09/99

**DATA SUMMARY FORM: Diesel Range Organics (DRO)** Page _9___ of __9__

Project #: 180-2644-1
Site : DIMOCK
Lab. : TALPA

Number of Soil Samples : 0
Number of Water Samples : 2

| Sample Number : | | TC-1 | | AW-2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Matrix : | | Water | | Water | | | | | | | |
| Units : | | mg/L | | mg/L | | | | | | | |
| Date Sampled : | | 08/04/2011 | | 08/04/2011 | | | | | | | |
| Time Sampled : | | 09:30 | | 13:20 | | | | | | | |
| Dilution Factor : | | 0.98 | | 1.05 | | | | | | | |
| Analyte | RL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| Diesel Range Organic (DRO) | 0.50 | | | | | | | | | | |

RL = Reporting Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL * Dilution Factor) Revised 09/99

# Appendix C
# Chain of Custody Records

# Chain of Custody Record

TestAmerica Laboratory location: Pittsburgh (Water)

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica — THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

COC No: 005408 — of ___ COCs

| Client Contact | | | |
|---|---|---|---|
| Company Name: URS Corporation | Client Project Manager: Thomas Merski | Site Contact: Jim Pinta | Lab Contact: Carrie Gamber |
| Address: 501 Holiday Dr, Suite 300 | Telephone: 412-503-4603 | Telephone: 412-860-6342 (Cell) | Telephone: 412-963-7058 |
| City/State/Zip: Pittsburgh, PA 15220 | Email: James-Pinta@urscorp.com | Analysis Turnaround Time (CALENDAR DAYS or WORKING DAYS) | Analyses |
| Phone: 412-503-4700 | David-Blauschild@urscorp.com | TAT if different from below ___ | |
| Project Name: VGL Gates Focused Site Assessment | Method of Shipment/Carrier: FedEx Next Day Air | ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day | |
| Project Number: 39938688.00001 | Shipping/Tracking No: | | |
| PO# 694872 | | | |

| Sample Identification | Sample Date | Sample Time | Matrix: Air | Aqueous | Sediment | Solid | Other: | Containers & Preservatives: H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | Unpres | Other: | Filtered Sample (Y/N) | Perform MS/MSD (Y/N) | VOCs | SVOCs | Metals (Total/Dissolved) Calcium, Iron, Manganese, Sodium | Total PA Short List for Primary Drinking Water | HEM | Chloride, Alkalinity, TDS, Sulfate | Ammonia | Glycols | DRO (GRO) | MBAS | Sample Specific Notes / Special Instructions: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TC-1 | 8/4/11 | 9:30 | | X | | | | | | | | | | | | | X | X | X | X | X | X | X | X | X | X | |
| AW-2 | 8/4/11 | 13:20 | | X | | | | | | | | | | | | | X | X | X | X | X | X | X | X | X | X | |
| | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | X | | | | | | | | | | | | | | | | | | | | | | | |

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☐ Disposal By Lab ☐ Archive For ___ Months

Special Instructions/QC Requirements & Comments:

| | | | | | | |
|---|---|---|---|---|---|---|
| Relinquished by: J. Pinta | Company: URS | Date/Time: 8/4/11 | Received by: | Company: FA BH | Date/Time: 8/5/11 1000 |
| Relinquished by: to FedEx | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |



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DIM0193638

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# Appendix D
# Laboratory Case Narrative

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

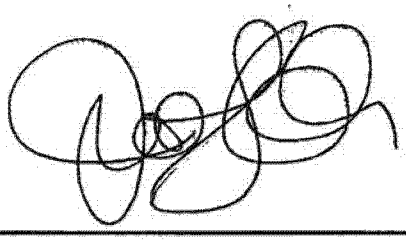
# ANALYTICAL REPORT

Job Number: 180-2644-1

Job Description: Focused Site Assessment

For:
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

Attention: Mr. James Pinta, Jr.



Approved for release.
Jill L Colussy
Project Mgmt. Assistant
9/13/2011 8:29 AM

Designee for
Carrie L Gamber
Project Manager II
carrie.gamber@testamericainc.com
09/13/2011

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**TestAmerica Laboratories, Inc.**
TestAmerica Pittsburgh 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238
Tel (412) 963-7058 Fax (412) 963-2468 www.testamericainc.com

## CASE NARRATIVE

## Client: URS Corporation

## Project: Focused Site Assessment

## Report Number: 180-2644-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

**RECEIPT**
The samples were received on 08/05/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.0 and 0.7 C.

The laboratory received a broken 1L amber bottle for sample TC-1 (180-2644-1).

The laboratory only received six VOA vials for sample AW-2 (180-2644-2) instead of nine.

**LOW LEVEL VOLATILE ORGANIC COMPOUNDS**
Methylene Chloride and Toluene were detected in method blank MB 180-10937/3 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged

**SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)**
No difficulties were encountered during the semivolatiles analyses.

**GAS RANGE ORGANICS**
No difficulties were encountered during the GRO analyses.

**GLYCOLS**
Triethylene Glycol was detected in method blank MB 480-27399/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The continuing calibration verification (CCV) (CCV 480-27383/3) for Ethylene Glycol recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

**DISSOLVED GASES**
The following samples submitted for dissolved gases analysis were received with incorrect preservation (pH >2): AW-2 (180-2644-2) and TC-1 (180-2644-1).

**1,2-DIBROMOETHANE AND 1,2-DIBROMO-3-CHLOROPROPANE BY MICROEXTRACTION AND GAS CHROMATOGRAPHY**
No difficulties were encountered during the EDB and DBCP analyses.

**DIESEL RANGE ORGANICS**
No difficulties were encountered during the DRO analyses.

**METALS**
Antimony, Boron and Molybdenum were detected in method blank MB 180-10641/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Several analytes were detected in method blank MB 180-10417/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

GENERAL CHEMISTRY

The method blanks had compounds detected at a level that was above the method detection limit but below the reporting limit. The values should be considered an estimate, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

8/5/2011

# Login Container Summary Report

180-2644

Temperature readings: _____

| Client Sample ID | Lab ID | Container Type | Container pH | Preservative Added (mls) | Lot # |
|---|---|---|---|---|---|
| TC-1 | 180-2644-A-1 | Plastic 1 liter - unpreserved | | | |
| TC-1 | 180-2644-B-1 | Amber Glass 1 liter - Sulfuric Acid | 2 | | |
| TC-1 | 180-2644-C-1 | Amber Glass 1 liter - unpreserved | | | |
| TC-1 | 180-2644-D-1 | Amber Glass 1 liter - unpreserved | | | |
| TC-1 | 180-2644-E-1 | Amber Glass 1 liter - Hydrochloric | 2 | | |
| TC-1 | 180-2644-F-1 | Amber Glass 1 liter - Hydrochloric | 2 | | |
| TC-1 | 180-2644-G-1 | Plastic 500ml - with Nitric Acid | 2 | | |
| TC-1 | 180-2644-H-1 | Plastic 500ml - unpreserved | | | |
| TC-1 | 180-2644-I-1 | Plastic 250ml - with Sulfuric Acid | 2 | | |
| TC-1 | 180-2644-J-1 | Voa Vial 40ml - with Sodium | p | | |
| TC-1 | 180-2644-K-1 | Voa Vial 40ml - with Sodium | p | | |
| TC-1 | 180-2644-L-1 | Voa Vial 40ml - unpreserved | | | |
| TC-1 | 180-2644-M-1 | Voa Vial 40ml - unpreserved | | | |
| TC-1 | 180-2644-N-1 | Voa Vial 40ml - unpreserved | | | |
| TC-1 | 180-2644-O-1 | Voa Vial 40ml - Hydrochloric Acid | p | | |
| TC-1 | 180-2644-P-1 | Voa Vial 40ml - Hydrochloric Acid | | | |
| TC-1 | 180-2644-Q-1 | Voa Vial 40ml - Hydrochloric Acid | | | |
| TC-1 | 180-2644-R-1 | Voa Vial 40ml - Hydrochloric Acid | | | |
| TC-1 | 180-2644-S-1 | Voa Vial 40ml - Hydrochloric Acid | | | |
| TC-1 | 180-2644-T-1 | Voa Vial 40ml - Hydrochloric Acid | | | |
| TC-1 | 180-2644-U-1 | Voa Vial 40ml - Hydrochloric Acid | | | |
| TC-1 | 180-2644-V-1 | Voa Vial 40ml - Hydrochloric Acid | | | |
| TC-1 | 180-2644-W-1 | Voa Vial 40ml - Hydrochloric Acid | | | |
| AW-2 | 180-2644-A-2 | Plastic 1 liter - unpreserved | | | |
| AW-2 | 180-2644-B-2 | Amber Glass 1 liter - Sulfuric Acid | 2 | | |
| AW-2 | 180-2644-C-2 | Amber Glass 1 liter - Sulfuric Acid | 2 | | |
| AW-2 | 180-2644-D-2 | Amber Glass 1 liter - unpreserved | | | |
| AW-2 | 180-2644-E-2 | Amber Glass 1 liter - unpreserved | | | |
| AW-2 | 180-2644-F-2 | Amber Glass 1 liter - Hydrochloric | 2 | | |
| AW-2 | 180-2644-G-2 | Amber Glass 1 liter - Hydrochloric | 2 | | |
| AW-2 | 180-2644-H-2 | Plastic 500ml - with Nitric Acid | 2 | | |
| AW-2 | 180-2644-I-2 | Plastic 500ml - unpreserved | | | |
| AW-2 | 180-2644-J-2 | Plastic 250ml - with Sulfuric Acid | 2 | | |
| AW-2 | 180-2644-K-2 | Voa Vial 40ml - with Sodium | p | | |
| AW-2 | 180-2644-L-2 | Voa Vial 40ml - with Sodium | p | | |
| AW-2 | 180-2644-M-2 | Voa Vial 40ml - unpreserved | | | |



CABOT-EPA 001617

| Client Sample ID | Lab ID | Container Type | Container pH | Preservative Added (mls) | Lot # |
|---|---|---|---|---|---|
| AW-2 | 180-2644-N-2 | Voa Vial 40ml - unpreserved | | | |
| AW-2 | 180-2644-O-2 | Voa Vial 40ml - unpreserved | | | |
| AW-2 | 180-2644-P-2 | Voa Vial 40ml - Hydrochloric Acid | P | | |
| AW-2 | 180-2644-Q-2 | Voa Vial 40ml - Hydrochloric Acid | | | |
| AW-2 | 180-2644-R-2 | Voa Vial 40ml - Hydrochloric Acid | | | |
| AW-2 | 180-2644-S-2 | Voa Vial 40ml - Hydrochloric Acid | | | |
| AW-2 | 180-2644-T-2 | Voa Vial 40ml - Hydrochloric Acid | | | |
| AW-2 | 180-2644-U-2 | Voa Vial 40ml - Hydrochloric Acid | | | |